



APR 24 2000

MASTER FILE

DSSD Census 2000 Procedures and Operations Memorandum Series G# 22

MEMORANDUM FOR Brian Monaghan
 Lead Assistant Division Chief for Censuses
 Field Division

Attn: Management Training Branch

Through: Howard Hogan *Howard Hogan*
 Chief, Decennial Statistical Studies Division

From: Robin A. Pennington R.A.P.
 Decennial Statistical Studies Division

Subject: Observation of Update/Leave Training and Enumeration

INTRODUCTION

As part of my preparation for evaluating the Update/Leave (U/L) operation for Census 2000, I observed three days of enumerator training and two days of enumeration in Carver County, Minnesota. In addition I was able to observe one day of activities in the Local Census Office (LCO) overseeing this region, which is Shakopee, Minnesota. Because I will be evaluating this operation and had participated in its planning, I recorded observations in minute detail. A report on these details is contained in the attachment to this memorandum.

One reason for choosing this locale was my interest in seeing how the operation is impacted by adverse weather conditions and other factors beyond human control. From this perspective it was unfortunate that the area on occasion reached record high temperatures during my visit. This region right outside Minneapolis, Minnesota is having a real housing boom at this time. Many housing unit adds were expected, as well as block map street additions, and I saw much evidence of the growth of population and housing in this area.

ENUMERATOR TRAINING

This LCO started the enumerator training a day early in hopes of starting the operation early.

Therefore when I arrived for what was expected to be the first day of training on February 28, 2000, it was actually the second day of training. On this day, I visited the training site in Cologne, Minnesota, where two Crew Leaders were conducting a joint training session.

A recurring complaint during the training was that there were so many manuals and that they were nearly indistinguishable except for some numbers that appear on the cover. In every place I visited, people recommended that these manuals have different colored covers. I recognize that the color-coding aids in getting the materials grouped together in the LCO, though. Another suggestion that allows the same color covers to be used was that there be color-coded stickers to apply to each manual. I did notice that by the end of the training people were becoming more familiar with what was in each manual, which made pulling out the correct manuals for an exercise a more efficient process. However throughout the training, every time the Crew Leader had to turn to a different set of materials for a new activity, it was necessary for the Crew Leader to repeat the form numbers of the required materials at least once.

Recommendation for decreasing confusion in dealing with the training materials: reduce the number of books of training materials and find some way to identify each booklet easily, such as colored stickers.

One primary question that extends to a larger purview was what to do for the area code change the region is to undergo in the near future. Such a change could require a correction action to every record listed in the registers in order to update the telephone numbers, and the enumerators were wondering if they would be responsible for making such an overarching change to the records. In that case, people were hoping that nobody would be home when they were delivering questionnaires so that fewer corrections would need to be noted.

On this day there was discussion of an issue of major importance to me, which is that of the definitions of the various action codes assigned to housing units during the operation. These were not always obvious distinctions or situations to the trainees, but I found the discussion that took place to be quite effective. It was also a means of getting the trainees involved in the training exercises, as well as personalizing the situations to the local environment.

My second day of training observation took place on February, 29th, in Victoria, Minnesota. At the start of this day of training the enumerators were discussing the Advance Letter that most of them had received the previous day. Nobody knew about the advance letters. The fact that these letters all had the wrong street address on them sent the enumerators into something of a panic. First there was the issue of the enumerators losing faith in the Census Bureau because of this mistake, and then there was the concern that the Bureau perhaps had the wrong addresses for every housing unit, which would imply that the enumerators would have to do a delete and an add for every housing unit rather than the expected norm of delivering the questionnaire and verifying the address in the register.

An overarching comment that reached critical importance on this day of training was the issue of enumerator familiarity with the Census materials. First there was the issue of whether there were as many materials needed in the field as there were workbooks needed in the training. Also the training implied that the long forms could be distinguished from the short forms, but there was no physical example of either form in evidence. All the trainees had was a sheet of replicated labels, and so the whole process was a little fuzzy at this point. There were questions about how big each form type was and how the labels looked on the forms. Some people had the impression that the labels would be peel-off rather than printed directly on the forms. Furthermore they did not see a Census map until the end of this day of training, and they had no idea what was actually on the questionnaires. From my experiences later with the questionnaire delivery, it was clear that it would have been beneficial for the enumerators to see the questionnaires before they started working the operation. Often people who answer the door want to know something about what they will have to do, and the enumerators were unable to tell them. There's also the issue of satisfying the curiosity about the census of the people who are actually working on the census.

At the end of this day of training came the activity in which the group of trainees heads to the field to see a live map and the area it represents. The particular area that had been chosen for this activity was an area in which a lot of housing was being built. A number of problems with the map were noted almost immediately. First there appeared to have been built a new entry road into the housing development, so the relative location of houses near that road was messed up, with some houses on the wrong side of the street. Second, the original block had been subdivided into 5 blocks ending in A, B, C, D, E. The map spot numbers did not start with 1, and some map spot numbers overlapped from block to block. This was very confusing at this stage. Since many new houses would have to be added for this area, people were unclear on what map spot numbers they needed to use.

On the third day of my observation, in the Chaska area, there was a live training exercise involving the delivery of questionnaires. One very interesting problem appeared at the very first map spot we visited. Interestingly enough, the second person assigned to practice in this area had originally listed the block, so we knew exactly what had happened before. During Address Listing, a visit at the first structure on this block revealed that the upstairs was a separate housing unit. Nobody was home at the upstairs apartment, and no house number was showing on the building, but the downstairs resident said he thought the upstairs unit was #55, while his was #33. By the time we were delivering questionnaires, the upstairs unit was clearly marked as #35 instead. Because the upstairs housing unit had the wrong street number, it needed to be deleted and readded with the right number. However it wasn't clear what should be done for assigning a map spot. The housing unit was an add and a delete, but it belonged to a pre-existing map spot. The enumerator made annotations to the map, added remarks to the address register and was planning to discuss the problem with her Crew Leader. I did not hear the resolution.

I thought the discussion this day of the Quality Assurance procedures was effective, and the enumerators seemed to understand the process.

This day I heard the suggestion that the operation be worked by people in pairs. There was some merit to this proposal in this case, since the enumerators were responsible for carrying around census bags, a number of short and long forms, which are different sizes, privacy act notices, an address register, maps, additional questionnaires for added housing units, a pencil, and in addition this group had the responsibility of handing out small, slick-paper notices advertising census jobs. On the day of my practice listing observation it was near freezing and very windy, but gloves would have been an impossibility for anyone trying to hold on to all these materials.

OBSERVING IN THE LCO

My fourth day of observation was spent at the LCO in Shakopee, MN. I received a tour of the premises and was able to meet a number of the people in the office. At the time of my visit, the office was being swamped with calls about topics the office staff were not prepared to answer. First there were the inevitable questions about the address labels on the advance letter. There were also many calls about what to do with the envelope that was in the package with the advance letter. At the same time, there were questionnaires being delivered by mail for the American Community Survey. The envelope for this survey looks very similar to that for the census, with the words "American Community Survey" written in small print on the front. Even the office staff weren't sure what this was. More information needs to be reaching these people who are responsible for contact with the public.

I noted as I walked around the LCO that field materials had been organized according to the colored labels on the boxes. This appeared to be working very well.

My fifth day of observation was the first actual day of the Update/Leave operation. I observed the initial observation of an enumerator in the Chanhassen, MN area. This enumerator was assigned to enumerate the block where he lived, and he had recently visited the houses in his neighborhood to get signatures on a petition to stop a housing construction project in this area, so he was very familiar with the building plans in this region. I noted that this enumerator had found it necessary to organize the materials in order to simplify the questionnaire delivery process. Apparently it was prohibitively difficult to wait until being in the field to check all the MAFIDs and form types on the questionnaires. Every enumerator I observed ended up adopting some organizational system like this. The questionnaire delivery on this block was not difficult, although the block was quite large because most of the streets in the block were cul-de-sacs.

On the sixth day of my observation, I again noted that the enumerator had developed some organizational system and had checked the IDs on the forms before going into the field. This enumerator had the additional difficulty of being left-handed, which made handling the register very awkward. One additional comment this enumerator made was that it was very useful to him to have the canvassing go consistently to the right. Not only did that simplify the operation, but he also felt it was safer than traveling back and forth across the street.

One final observation I made on this observation of the U/L operation was that every address I saw during my visit was city-style. Only one housing unit was using a post office box at some other location for a mailing address. A number of people who answered the door during the questionnaire delivery asked why their forms weren't being mailed, and some mentioned that their houses had been there since the last census.

cc:

DSSD Census 2000 Procedures and Operations Memorandum Series Distribution List
Management Training Branch (FLD)
Regional Director, Chicago RO

Some specific items from my observation of the second day of Update/Leave training are:

The enumerator's manual shows an example of the D-105A Update/Leave Address Listing Page on page 5-5, but this example is not what the page really looks like. For example, the real page has only 6 address records per page, while this example has 12. Issues like this lead the enumerators to conclude that what is shown in training is open to interpretation in order to deal with the real situation when the time arises. This problem occurred every time something shown was not exactly as it would be in the operation, and I will note these occasions throughout this section. An additional problem with these sample pages in the enumerator manual is that they had been shrunk to fit in comments and instructions on the same page. This made the example page too small to read for many of the retired people working on the operation, and so for these exercises they were looking instead at the sample register for the training, D-648.5 or D-648.6, which does not discuss what can be changed in each column.

Recommendation for these two issues:

Have the manual contain a sample of an actual U/L Address Listing Page, at full size, next to a page that gives all the instructions for the items on the page.

Another issue that arose is that of annotations using capital letters. At some point in the training materials it was stated that all annotations and entries should be all capital letters, but the examples showed many instances in which capitals were not used, as well as the example referenced on page 5-16 of the Enumerator's Manual.

An issue that caused some confusion during the training was the HU codes that were chosen for the different pages. In particular, the U/L address add page shows HU code 15 and then says this code is not valid for the add page, but it does not say on that page what this code refers to. Although the code appears on the U/L Address Listing Page, the Crew Leaders were unable to determine or recall what this mystery code referred to when the address add page was discussed in the training. The issue of what these unknown codes referred to arose a couple other times in the course of the training, and there was no ready source for learning what all the codes that could appear on the Address Listing Page could refer to, since most of the codes are for Special Places.

Another point that appeared on this day as a minor issue fits into a larger recurring problem. That problem is that contact with the actual materials the enumerators would be using occurred very late in the training. How that was demonstrated on this second day of training was that it was necessary for the Crew Leader to tell the enumerators that for their exercises, adding streets to the map requires only a single line to be drawn. The "birds-eye view" map of Abbotsville, OK used for the training does not use single lines.

One item that was understood by the trainees but perhaps was not stressed enough was for something that occurs when a unit is added and a questionnaire label needs to be filled out. The training says that the map spot number and the block number on the questionnaire label for an added unit need to be filled in from the left, leaving trailing spaces. No justification for this requirement was given, and I expect that it will occasionally be forgotten in the process of everything else that is expected of an enumerator during an address add. I did not have the opportunity to check how well this was being done in my observation of the operation itself.

On the topic of dealing with added housing units, at one point the Crew Leader stated that for those units with location description only, the description should be written on the label. I thought it was very difficult to find instructions in the manual that contradicted that assertion, although the Crew Leader did give correct information at some later point in the training. Also it was never explained in the training materials why descriptions would not appear on the labels for existing housing units, making it difficult for Crew Leaders and enumerators to determine for themselves what the correct procedure should be.

Before beginning with the third day's training, the Crew Leader made the comment to me that the training materials would have been a little easier to understand if they hadn't touched on topics and then backed out of them and gone on to something else. People seemed to feel they were never getting the whole picture, and what they knew about every little piece of the operation was contributing to their nervousness at this stage. However I have to add to this comment that by the end of the training, people were indicating that they now understood why the training didn't go into everything all at once, because the amount of material was truly overwhelming no matter how it was approached. It had become something of a joke, however, whenever the Crew Leader read that the training would be coming back to some topic.

I was especially interested to see how a particular exercise went during the training, and this exercise was covered during this day of training. This exercise had been added to the training as a result of some meetings I had been involved with for Address List Development and dealt directly with the situation that arose for Puerto Rico where, because of processing problems, every address had been consolidated into the address description field. As a result of this processing issue, no questionnaire labels in Puerto Rico will have addresses. An exercise on page I-5 in the Guide for Training Update/Leave Enumerators covered having the enumerators check all three sources - the label, the register and the maps - to make sure they were delivering a questionnaire to the correct housing unit. It seemed to me that the exercise went well. People had to examine the labels and the register and think about what they were doing to complete the exercise, and I felt that people found this exercise helpful. To follow up on this observation, I did note later when I was seeing the actual operation that the enumerators had understood the importance of conscientiously checking all this information before delivering a questionnaire. However in the area I observed there were always addresses on the label, and so the importance of checking the map each time was reduced from what it will have to be in Puerto Rico.

One problem with the training package that showed up in a number of small ways at different

points was how the exercises built on each other. In one case this resulted in trainees having to figure out the map spot for an added unit when another unit had been added to the same block in a previous exercise that occurred earlier, perhaps the day before. The training didn't have people finish a whole block before moving to new material. In addition, if a previous exercise had been completed incorrectly, some exercises would also end up with the incorrect answers, as given in the Guide for U/L Training. In particular, exercise #16 used a map spot number that had to be larger than the number added in a previous activity, and some people made a mistake with the added units in exercise #19 because they had mistakenly used the required address labels in a previous exercise. This exercise was another case that was believed to be unrealistic. This problem is compounded whenever there are errors in the materials, such as having the answers to exercise #16 read that "North Andrews St" should be entered, rather than "N Andrews St."

One example covered during this portion deals with a vacant unit. In this example, exercise #18, there was a post-office box number given as the mailing address. The solution had the enumerators line through the respondent name and phone number but not the mailing address. Enumerators were uncomfortable with the idea of deleting only part of the information, and the issue of why was not addressed in the materials. It seems odd to leave a questionnaire with a P.O. box number as a mailing address at a unit that is known to be vacant. Again, it would be helpful, whenever the instructions don't make intuitive sense, if there were some kind of explanation for the procedure.

On this day the issue of duplicates (D2s) in the housing unit register was dealt with several times. Of all the action codes given for the address register, this seemed to be the most difficult for the trainees to understand. The example given in the training dealt with a housing unit that appeared to have been originally listed by mistake as an additional unit in a house and now needed to be deleted. Perhaps another common situation leading to such an erroneous listing would be that of an apartment unit listed both by street address and by apartment building name, but this was not discussed in the training. Some enumerators at this session were having difficulty with determining which ID number they were supposed to write above the questionnaire label, when they write along with D2 that the unit is a "Dupe of (the unit ID for the original listing)." I wondered why it was necessary to write which unit it was a duplicate of, since we don't data capture this information; I decided it must be for the benefit of the Crew Leader performing a QA.

One exercise for this day was that of making inset maps. The example for this procedure is in the Enumerator's Manual, page 6-11. This wasn't covered heavily, but in the example in the manual it appears that the map spot numbers used for the inset were defined incorrectly. The last map spot number shown for this block is 9, while the first number used for units added on this inset is 11. Again, this leaves trainees to believe that instructions are open to interpretation.

Another issue that became clear to me by this day was that any change to a respondent name or telephone number was given an action code of C. I predict that this will result in many more C actions than what was anticipated with C thought to represent address corrections.

Also on this day was the bulk of the training on what could be considered unusual situations, such as locked gates and empty trailer pads. The training suggests that housing under construction should be listed if it has finished windows and doors, but the point that was made during the session I attended was that in the northern climate, windows and doors are often put in early in the building process if the unit is to be worked on during the winter months. People were concerned with dealing correctly with seasonal housing units and trailers, as discussed on page J-41 of the Guide for Training Update/Leave enumerators, but they didn't believe other trailer parks were something they would come across frequently. On the other hand there was much interest in figuring out how they would need to handle the house where the artist formerly known as Prince lives.

The treatment of Special Places in this operation proved to be difficult for most people. Although it was clear enough that there could not be any action taken on a Special Place, especially since the action code field is filled with "SP," still people weren't sure what they should do if they found that the entry for a Special Place needed to be corrected. Their thinking was that the office personnel dealing with Special Places would want to know about corrections, but there was no mechanism for passing that information along. It does say on page 5-10 of the enumerator's manual that no corrections should be made, but this didn't seem to match people's conception of what they should be doing when they're out in the field. Similarly there was much discussion about whether people should use an INFO-COMM when a special place is added to the register. Perhaps we will see some of these when we do the INFO-COMM evaluation portion of the Update/Leave evaluation.

However at the same time, people weren't confused or argumentative about the issue of not being able to correct a house number. The protocol for this circumstance is a delete action for the unit listed in the register and then an add action for the unit with the correct house number. Even though the trainees knew that many of these would have resulted from keying and writing errors, they understood that to the bureau these were different units. Later in the field, however, there was some concern among enumerators when the form type was not the same for the deleted and added units that were the same unit. Perhaps it should have been mentioned in the training somewhere that this was a very likely scenario and that the census wouldn't get messed up from such an occurrence.

On the third day of my observation I attended the training in Chaska, MN. This was the day that the enumerators were to begin working with live registers and delivering questionnaires. On the original schedule, that puts people delivering questionnaires one day before the official start of the U/L operation. On the schedule this LCO was using, that put people delivering questionnaires two days before the operation starts. As it turned out, since the FOS training and Crew Leader training included the Enumerator training, the actual start of questionnaire delivery was several weeks in advance of the start of the operation. For future reference, I would highly recommend that training materials make a note that supervisory training involving enumerator training not go through the actual activity of delivering questionnaires, instructive though that process may be. This operation was not supposed to start at the end of January, but nobody

seemed to question it when it did.

Many of the comments I heard on the third day of my observation echoed those I had heard at the other training sessions. In addition, this group suggested that it would have been helpful to start the training with a short video (15 minutes) of what the process is supposed to look like. That could have lessened anxiety and made it clear earlier what the operation involved. Such a video could also show what happens as a questionnaire moves through the process. In addition some people said they would have liked to have had more information available on the Update/Leave Quick Reference Card, D-535.

As people got into the field and saw their materials, they understood all the situations that had been covered in their training. Many of these problems appeared even on this first day, such as a duplicate printed questionnaire and incorrectly printed house numbers probably resulting from keying errors. This made the training much clearer.

There was some difficulty in finding a good place to put the plastic bags with the questionnaires and other materials when the house had a screen door that was locked. The bags didn't hang well on these handles, and it was also fairly windy on that day. On a later day there was a locked screen door with a broken handle. At these times I also noticed that the enumerators were always leaving the questionnaires at the front door, when sometimes it was clear that another door was what was actually used.

There were a few other items leading to confusion that I noted on this day. One was that the training had said that each binder would contain an Enumerator's Manual, but at some point that was changed to having people put their own in each binder, reusing it for each AA. An issue that does not appear in the manual, and so could not be cleared up by checking the manual, is that of the order of doing the blocks in the AA. Since the individual blocks are to be traveled in a particular order, people also got the impression that the AA had to be worked in the numerical order of block number. People thought that each block in an AA had been assigned a number, and then they were to work the AA in that order. Then they discussed how the "block numbering" did not give an efficient means of working the AA. This misperception might have been overcome if there had been more directives about choosing an efficient means of canvassing the AA and then examples had shown the blocks being done in an efficient order. Since the exercises skipped around the blocks, this concept did not come across. Also, in spite of the consistent description of the AA locator map as having the AA shaded, as opposed to the other maps in which the AA or block is the unshaded part, this was still a counterintuitive concept and was confusing to some.

On my fourth day I talked to employees in the Shakopee Local Census Office. Staffing was reported to be huge problem. The unemployment rate in this region has been hovering at just above two percent for many months. The problems with staffing varied from having most people interested in the higher-paying field jobs rather than the steady office jobs, to having, as a result, not enough people employed in the office jobs to make the calls to other potential employees.

There seemed to be some disorganization and conflicting signals as well. Reportedly the call to enumerators about the training session for U/L was made the day before training was to begin. Only about half the expected number could make the initial training session. Then an evening/weekend session was scheduled to start the next week. I had previously noted that for those who had been able to schedule other commitments around the first training schedule, there were unclear directions about what times people could work. There was a need for flexible hours for those who were fitting in the enumerator job on top of other employment, but at the training sessions people were being told by the office supervisors they had to do all their work within a 9-5, Monday - Friday office schedule. This did not agree with things that were part of the training materials. For example the sample D-308 on page 8-3 of the Enumerator's Manual shows the hours as 11:00-3:00 and 4:45-7:45, and the section on payroll in the training guide repeatedly mentions the Sunday-Saturday work week but makes no mention of the any restricted days or hours. Furthermore others had heard a different message - that they were to try to work off-hours in order to be more likely to catch people at home. At any rate it certainly was not clear what the expectation was; the Bureau needs to be clear to all job applicants what such expectations are, and it wasn't clear even at the end of a week of training what they were. Operations such as this depend on getting good staff to work for the Bureau for a short period of time, and job applicants and employees should not get these inconsistent messages about what the Bureau expects from them.

One issue that people were pleased about, though, was that people's retirement benefits wouldn't get reduced from working on the census. This factor, at least, greatly simplified the hiring of temporary workers.

An issue that interested me because I had been part of the discussions leading to the procedure was that of the copying of the U/L maps for NRFU and CIFU. Because changes to U/L maps could not be processed in time to have updated maps available for the ensuing operations, it became necessary to have all maps xeroxed before U/L and those maps with changes xeroxed again after U/L, replacing these maps for the NRFU and CIFU operations. In the abstract this was a fairly simple procedure. In reality there were some important issues to deal with in the storage of such maps. The office staff had neatly arranged all these maps into boxes, filling much of one of the rooms of the LCO. The AAs were marked by post-it notes. When the office staff had nearly completed the storage of these maps, they were told to put all the maps in envelopes. For some AAs the maps do not fit into one envelope. The envelopes were marked individually as to what they contained, with something more permanent than post-it notes, but it's not as easy to see which AA was in each envelope. Furthermore the maps stored this way take up even more space. However the real concern of the office staff was which means of storage was less likely to result in having maps lost. I don't know what the eventual resolution to this problem was, or if this procedure was followed uniformly across the country.

For most of my day of observation at this LCO I listened to the training that was taking place for the people who would be performing the office review of the U/L registers and maps. It was particularly interesting observing this group of people because these were the same people who

earlier had been responsible for assembling the U/L registers, making the extra copies of the U/L maps and organizing these map copies, as well as other related office operations. Their perspective on Census operations by this point was fairly wide, although they hadn't received training in the U/L operation itself. The average age of the members of this staff was 68.5, and they wanted to find a logical reason for everything they were doing. Those reasons exist but hadn't yet been passed along to this staff. They went through the office review training materials very assiduously and brought up a number of issues that required resolution on the spot. I felt reassured by the fact that everyone in the office was looking for the logic of how the operations fit together. I wished the answers to their questions were more accessible.

On Monday, March 6, I observed another enumerator in Victoria, MN. This enumerator was working in his own block, which was quite large because of cul-de-sacs. This was another area that had grown rapidly in recent months. Only a couple years ago the whole area had been a farm, and many houses were under construction. Problems that showed up this day were that the block map had been multi-sheeted, but a number of the map spots were on the wrong side in the cul-de-sacs. Moving these map spots to the correct location was complicated by having to work with more than one map sheet, especially since some of the cul-de-sacs ended at points just off the map that contained the housing units. Another unusual problem that occurred in this area was that there were a number of houses listed on the register on what were empty lots at the time of enumeration. I surmised that the Address Lister had used a planning map and listed planned housing units. Thus there were map spots that matched with lots that were not yet built on or where building had only just begun, and some of the houses had ended up with different house numbers than those listed. This particular enumerator did not have an abundance of map skills, so some of the map corrections that needed to be made were difficult for him. He also made the error of starting with the last map spot number used in the block when assigning a new map spot for an added unit. However I did observe that for added units the enumerators were very consistent and conscientious about transcribing all the information to the labels. It seemed to be easy enough for them to remember to write everything as long as they went through all the parts of the label systematically.